Immunopathology 2025’

Introduction

Requirements

- Participation in the lectures (no more absences as 3)
- Activity during the lectures
- Final score calculated according to the presence and the activity

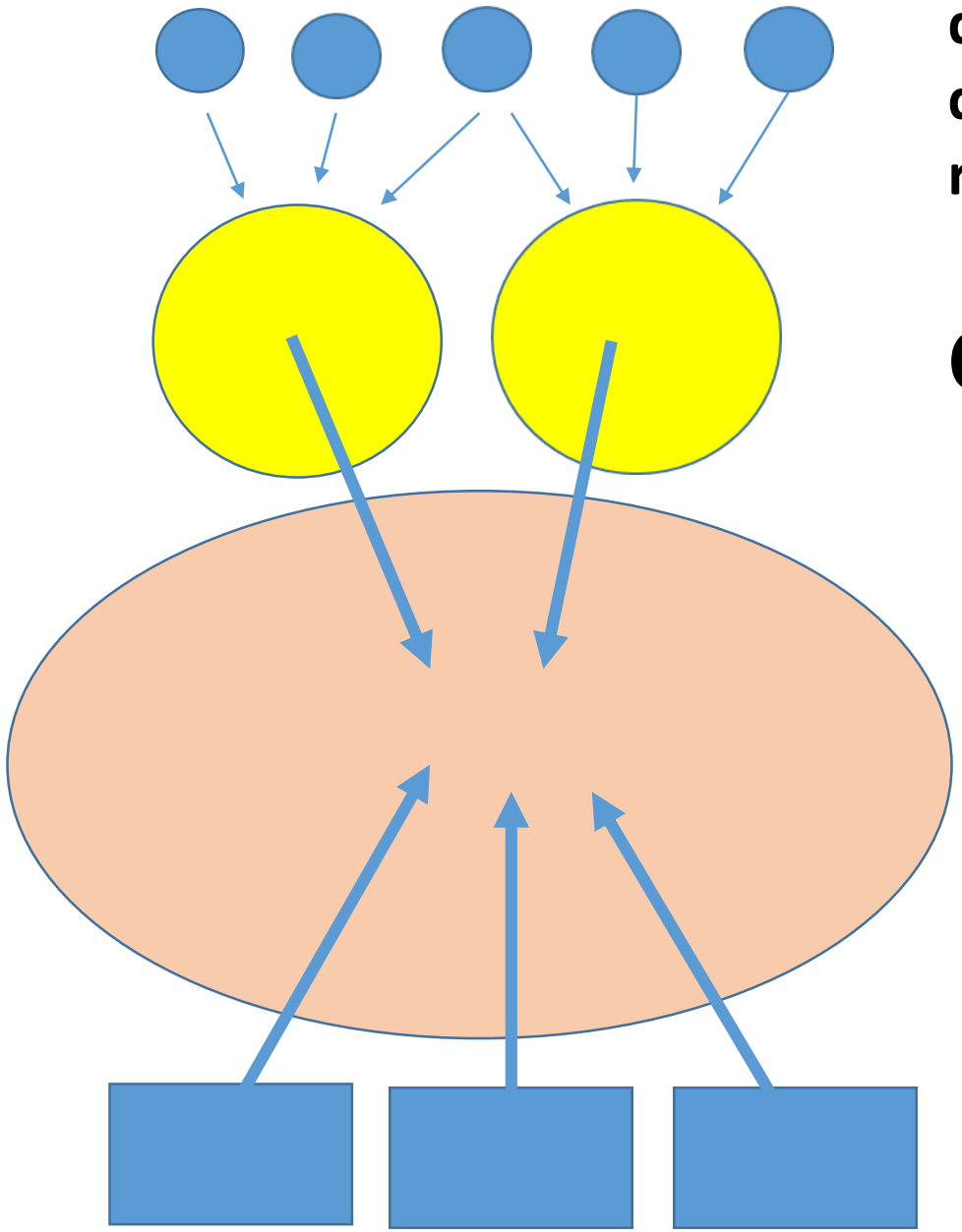
Definition

From ***Wikipedia***, the free encyclopedia

Immunopathology is a branch of medicine that deals with immune responses associated with disease. It includes the study of the pathology of an organism, organ system, or disease with respect to the immune system, immunity, and immune responses. In biology, it refers to damage caused to an organism by its own immune response, as a result of an infection. It could be due to mismatch between pathogen and host species, and often occurs when an animal pathogen infects a human (e.g. avian flu leads to a cytokine storm which contributes to the increased mortality rate).

More detailed definition

- Immunopathology is an independent and intensively growing research-field channels and synthetizes the clinical and theoretical knowledge about faulty immune reactions for the daily clinical routine and for the technical/pharmaceutical developments.
- Immunopathological researches help to better understand the patho-biological background of different disease.
- Results of immunopathological researches help for diagnostics and developing therapeutic strategies and developing new tools for detect and treat different diseases.
- Immunopathology research needs up to date learnings of basic immunology and clearly understand the clinical aspects.
- **Immunopathology is equally theoretical and practical/clinical subject of the modern medicine**.



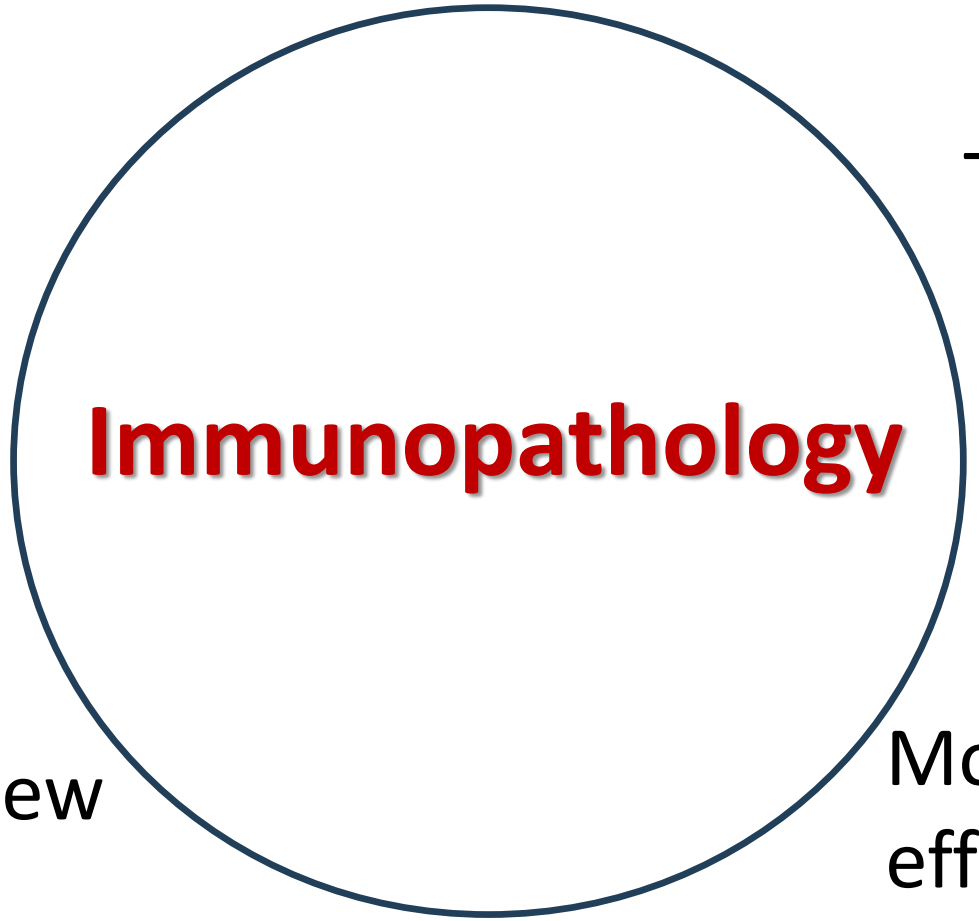
Patients suffering with allergy, asthma, autoimmune diseases, malignant tumors, chronic inflammatory diseases, infectious diseases, organ transplantation, receive biological therapies, etc.

Clinical practice and research

Immunopathology

Basic and applied immunology, cell biology, genetics, bioinformatics, biotechnology, pharmacology, vaccine developments, AI, etc

The role of immunopathology in the practical medicine



Diagnostics

Therapy planing

Interpretation of the diagnostic results

Selection of personalized therapy

Development of new diagnostic tools

Monitoring of therapeutic efficiency

Main fields of immunopathology

- Allergy
- Autoimmune diseases
- Immunodeficiency
- Tumor immunology
- Organ transplantation
- Acute and chronic infectious diseases
- Vaccination and vaccine developments
- Immunotherapy, immunosuppression

Date	Lecture	Lecturer
09. 16	Introduction	NP
09. 17	Allergy I.	NP
09. 23	Allergy II.	NP
09. 30	Targeting and tolerating type immune response	NP
10. 07	Autoimmunity I.	NP
10. 14	Autoimmunity II.	NP
10. 21	Rheumatoid arthritis	OK
10. 28	Microbiom and IBD	OK
11. 05	Tumor immunology	NP
11. 11	Infectious diseases I. Ebola, SarsCoV2	NP
11. 18	Infectious diseases II.	BK
11. 25	Vaccination and vaccine development	BK